

SEMINAR ANNOUNCEMENT

Grating-Based Real-Time Smart Optics For Biomedicine and Laser Communications

Zahid Yaqoob
Graduate Student
University of Central Florida

The field of optical science and technology is impacting almost every aspect of our lives and is developing fast to come to par with its counter parts: electronics and ultrasonics. A tremendous amount of vital research has been conducted both at the device as well as system levels to solve pertinent problems in the areas of communications, industry, defense, and biomedicine. From this perspective, novel architectures using active and passive wavelength sensitive optics leading to advanced solutions for

the biomedical and laser communications research communities will be discussed. Novel high-speed no-moving-parts optical coherence tomography (OCT) systems will be introduced that have the capability to acquire OCT data at less than a microsecond/data point. The basic principle of the proposed OCT systems relies on the use of an isotropic acousto-optic device. The study indicates that acousto-optic (AO) Bragg cells can be highly effective in forming high-speed scanning OCT systems if the system is designed to counter unbalanced spectral spoiling in Bragg diffraction.

Wednesday, December 17, 2003

10:00 AM

Bldg. 224/ Rm. A312

For further details see Joy Dunkers